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REMARKS

Reconsideration is requested in view of the above amendments and the following remarks. Claims 1-8 have been cancelled without prejudice. New claims 9-17 have been added. Claims 9-17 are pending in the application.

New independent claim 9 tracks original claim 1 and further includes the feature of original claim 3. Claims 10 and 11 track original claims 2 and 4 respectively. Claim 12 is supported by, e.g., page 11, lines 6-9, page 15, lines 12-16 of the specification, among other places. Claims 13, 14, 15 and 16 track original claims 5, 6, 7 and 8 respectively. Claim 17 is supported by, e.g., page 18, line 30 to page 19, line 9 of the specification, among other places.

Claim Rejections – 35 USC § 102

Claims 1-8 are rejected under 35 USC § 102(e) as being anticipated by Weng et al. (US 7,063,666). Applicants respectfully traverse this rejection. Claims 1-8 have been cancelled without prejudice. Applicants are not conceding the correctness of the rejection.

New independent claim 9 is patentable over Weng et al. for the following reasons. Claim 9 requires a cable substrate electrically connecting a sensor signal substrate and a sensor ground substrate with a signal line and a ground line, respectively, wherein the sensor ground substrate and the cable substrate are connected directly or via a relay ground substrate.

The present ultrasonic probe includes a cable substrate, which can be used to connect not only the sensor signal substrate to the signal line but also the ground substrate to the ground line. The present ultrasonic probe requires the cable substrate being connected to the ground substrate directly or by a relay ground substrate. This arrangement helps reduce ground resistance and as a result, reduces image noise and improves the quality of the image obtained (see page 2, line 25 to page 3, line 10 of the specification).

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Weng et al. fail to disclose a cable substrate electrically connecting a sensor signal substrate and a sensor ground substrate with a signal line and a ground line, respectively, wherein the sensor ground substrate and the cable substrate are connected directly or via a relay ground substrate, as required by claim 9. Instead, Weng et al. focus on a wide bandwidth ultrasound applicator having an array of transducer elements 102 (see Weng et al., col. 1, lines 15-19, col. 6, lines 28-31). The ground electrode 153 in Weng et al. is merely a common ground electrode of the transducer elements 102 (See Weng et al., col. 7, lines 35-38). Weng et al. disclosed nothing about the cable substrate electrically connecting not only a sensor signal substrate to a signal line but also a sensor ground substrate to a ground line, much less the cable substrate being connected to the sensor ground substrate directly or via a relay ground substrate, as required by claim 9. For at least these reasons, claim 9 is patentable over Weng et al.


In view of the above, favorable reconsideration in the form of a notice of allowance is respectfully requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3804.

Respectfully submitted,

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